

### **REMARKS/ARGUMENTS**

In response to the pending Office Action of July 3, 2006, Applicant presents the following arguments and amendments. The present amendments are requested solely for the purpose of more clearly describing and claiming the present invention and do not introduce any new matter. Applicant submits that in light of the arguments presented and amendments requested this application is in condition for allowance. Accordingly, entry of these amendments, reconsideration of all pending rejections and objections, and passage to allowance is respectfully requested.

#### **Amendments to the Claims**

Amendment of claims 26 and 29 is requested to rewrite these claims such that they depend on claim 1. Amendment of claim 32 is requested to rewrite this claims such that it depends on claim 13. The requested amendments to claims 26, 29 and 32 do not introduce any new matter. With this response, claims 1-35 are pending herein.

#### **Restriction Requirement**

The Office Action of July 3, 2006, requires restriction to one of the following three inventions:

Group I (claims 1-20): drawn to an electrode classified in class 204, subclass 280;

Group II (claims 21-25): drawn to a nanoparticle an method of making thereof, classified in class 977, subclass 773; and

Group III (claims 26-35): drawn to a secondary electrochemical cell, classified in class 429, subclass 212.

The examiner characterizes the inventions of groups I and II as related as combination and subcombination wherein “the combination as claimed does not require the particulars of the subcombination as claimed because the electrode can be used with a nanoparticle or a nanoparticle film.” The examiner characterizes the inventions of groups II and III as related as combination and subcombination wherein “the combination as claimed does not require the particulars of the subcombination as claimed because the electrochemical cell can be used with a nanofilm.” The examiner characterizes the inventions of groups I and III as related as combination and subcombination wherein “the combination as claimed does not require the particulars of the subcombination as claimed because the electrode can be used with a nanoparticle or a nanoparticle film.” In support of the restriction requirement, the Examiner concludes that the inventions are independent or distinct because they “have acquired a separate status in the art in view of their different classification”, they “require a different field of search” and they “have acquired a separate status in the art because of their recognized divergent subject matter”.

Applicants respectfully disagree with the Examining Attorney’s characterization of the claims of the present application, and requests reconsideration and withdrawal of the pending election requirement in light of the following arguments and amendments. Pursuant to the requirements of 37 C.F.R. § 1.143, however, Applicants hereby provisionally elect with traverse the invention described as Group I (claims 1-20).

Applicants note that the claims of Groups I and III involve an important technical feature in common, as both groups related to devices and device components comprising nanostructured materials or films comprising silicon or lithium alloys of silicon. To emphasize the relatedness of the claims of Groups I and III, each of independent claims 26 and 29 have been amended to depend directly from claim 1 of Group I and independent claim 32 has been amended to depend directly from claim 13 of Group I. With entry of this amendment, therefore, all the claims of group III now

depend directly or indirectly from claims 1 or 13 of Group 1. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the pending restriction requirement involving Groups I and III.

Applicants argue that the existence of this common technical feature, emphasized by the claim dependencies introduced herein via amendment, renders the subject matter of Groups I and III close enough so as not to impose a significant burden in searching and examining the allegedly distinct or independent inventions. Similar prior art would need to be compiled and analyzed for an evaluation of the patentability of the claims of both Group I and Group III. Applicant respectfully requests reconsideration and withdrawal of the Examiner's restriction requirement involving Groups I and III because no undue search burden is placed on the Office, particularly in view of the claim amendments.

#### **Election of Species Requirement**

The Office Action of July 3, 2006, further requires that if Group I is elected an election is required of one of the allegedly distinct species:

- I-a Claims 1-12, An electrode that may require carbon black; and
- I-b Claims 13 – 20, An electrode that does not require carbon black.

In support of the election of species requirement the Examiner characterizes the species as “distinct because they all have different (materials/composition)” and concludes that “each species requires a different field of search”. Applicants respectfully disagree with the pending Election of Species requirement, and reconsideration and withdraw of the election of species requirement is requested in light of arguments provides herein. Pursuant to the requirements of 37 C.F.R. § 1.143, however, Applicants hereby provisionally elect with traverse Species I-a. Claims 1 – 12 and claims 26 – 31, as amended herein, correspond to Species 1-a.

First, as a clarification of the record, Applicants disagree with the Examiner's characterization of the claims of Species I-a and I-b. Claims 1- 12 are directed to electrodes comprising silicon nanofilms or lithium alloys thereof that may comprise carbon black, but are not required to contain carbon black. Claims 13 – 20, on the other hand, are directed to nanostructured silicon or lithium alloys thereof that do not comprise a carbon black component.

Although, the electrodes of claims of Species Ia and Ib differ in regard to the absence of a carbon black component, claims 1 – 20 are actually closely related as both species are directed to electrodes comprising nanostructured materials or films comprising silicon or lithium alloys of silicon. In addition, claims 26 – 35 (Group III) also have this important common technical feature and, therefore, are also regarded closely related to the subject matter of claims 1 – 20. The important relationship between the subject matter of claims in Species Ia, Species Ib and Group (III) allow these claims to be efficiently and effectively searched together. As similar prior art would need to be compiled and analyzed for an evaluation of the patentability of the claims of both Species I-a, Species I-b and Group (III), Applicants assert no undue search burden is placed on the Office in examining all of claims 1 – 20 and 26 – 35. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the Examiner's election of species requirement.

### **CONCLUSION**

In view of the foregoing, this case is considered to be in condition for allowance and passage to issuance is respectfully requested. Applicant reserves the right to pursue the non-elected inventions reflected in originally filed claims in subsequent continuation or divisional applications. If there are any outstanding issues related to restriction or patentability, the courtesy of a telephone call is requested, and the Examiner is invited to call to arrange a mutually convenient time.

It is believed that a two-month extension of time and corresponding fee is required for this submission. Therefore, payment in the amount of \$225.00 is being made via the Electronic Filing System with this submission. If any additional fees or further extensions of time are required, however, please also deduct all additional fees for this submission and any extension of time required from Deposit Account No. 07-1969.

Respectfully submitted,

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